

## CLAIMS

We claim:

1. A method for assessing intellectual property comprising:  
gathering intellectual property data;  
performing an assessment of the intellectual property data; and  
generating a report based on the assessment of the intellectual property data.
2. The method according to claim 1 wherein said intellectual property data is selected from the group consisting of the following: U.S. utility patents, U.S. plant patents, U.S. reissue patents, U.S. reexamination patents, pending U.S. patent applications (including divisionals, continuations, continuations in part, continuing applications, continuing examination applications, requested continued examination applications), international patents of any type, pending foreign patent applications of any type, design patents, industrial designs, trademarks, servicemarks, intent to use trademarks, mask works, copyrights, pending trademark applications, licenses, patent licenses, cross licenses, trade secrets, know how, showhow, domain names, confidential materials owned by a company not publicly known, and any other aspect of intellectual property that gives a company a competitive edge, or otherwise enhances the value of a company.
3. The method according to claim 1 wherein the step of performing an assessment of the intellectual property data further comprises the step of assessing a plurality of intellectual property holdings with respect to prior art, competitors' products, processes and market demands.
4. The method according to claim 1 wherein the step of performing an assessment of the intellectual property data further comprises the step of performing a sensitivity analysis to determine changes in the intellectual property data.
5. The method according to claim 1 wherein the step of performing an assessment of the intellectual property data further comprises the step of

performing a peer group analysis of a plurality of companies to compare the intellectual property data held by the companies.

6. The method according to claim 1 wherein the step of performing an assessment of the intellectual property data further comprises the step of performing a competitive analysis of a plurality of companies using the intellectual property data and market data.
7. The method according to claim 1 wherein the intellectual property data comprises patent data for a company.
8. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating an Average Term for at least one patent owned by the company according to the equation:

$$\text{Average Term} = \frac{\sum \text{Years remaining on patent term for each patent being assessed}}{\text{Number of patents being assessed.}}$$

9. The method according to claim 8 further comprising the step of comparing the Average Term against research and development expenditures over time.
10. The method according to claim 9 further comprising the step of comparing the Average Term for the company against an Average Term for a second company.
11. The method according to claim 10 wherein the second company is a competitor of the company.
12. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating Patent Years for at least one patent owned by the company according to the equation:

$$\text{Patent Years} = \sum_{i=1}^k (\text{Years remaining on term of patent } i)$$

where  $k$  = the total number of patents being assessed in the company's patent portfolio and where  $i$  is a counter for counting the number of patents.

13. The method according to claim 12 further comprising the step of comparing the Patent Years against research and development expenditures over time.
14. The method according to claim 12 further comprising the step of comparing the Patent Years for the company against Patent Years for a second company and wherein the second company is a competitor of the company.
15. The method according to claim 12 further comprising the steps of:  
plotting the Patent Years versus time;  
generating a line based on the plot of the Patent Years versus time;  
calculating an area under the line; and  
determining a Future Patent Power, the Future Patent Power equal to the area under the line.
16. The method according to claim 15 wherein the step of calculating the area under the line is performed by mathematical integration and wherein said line is nonlinear.
17. The method according to claim 15 further comprising the step of calculating the rate of change in the Future Patent Power with respect to time.
18. The method according to claim 15 further comprising the step of comparing the Future Patent Power against research and development expenditures over time.
19. The method according to claim 15 further comprising the step of comparing the Future Patent Power for the company against a Future Patent Power for a second company and wherein the second company is a competitor of the company.
20. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a percentage of lapsed patents by dividing the number of lapsed patents by the total number of patents in the company's patent portfolio.

21. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a percentage of patent applications pending by dividing the number of patent applications pending by the total number of patents in the company's patent portfolio.
22. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a percentage of patents that have been invalidated in the company's patent portfolio.
23. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a percentage of patents in the company's patent portfolio that have been involved in litigation.
24. The method according to claim 7 further comprising the step of performing a comparison, the comparison selected from the group consisting of: percentage of lapsed patents in the company's patent portfolio versus research and development expenditures over time, percentage of patent applications pending in the company's patent portfolio versus research and development expenditures over time, percentage of patents that have been invalidated in the company's patent portfolio versus research and development expenditures over time, and percentage of patents in the company's patent portfolio that have been involved in litigation versus research and development expenditures over time.
25. The method according to claim 7 further comprising the step of performing a comparison for the company, the comparison selected from the group consisting of: percentage of lapsed patents in the company's patent portfolio versus percentage of lapsed patents in a second company's patent portfolio, percentage of patent applications pending in the company's patent portfolio versus percentage of patent applications pending in a second company's patent portfolio, percentage of patents that

have been invalidated in the company's patent portfolio versus percentage of patents that have been invalidated in a second company's patent portfolio, and percentage of patents in the company's patent portfolio that have been involved in litigation versus percentage of patents in a second company's patent portfolio that have been involved in litigation.

26. The method according to claim 7 further comprising the steps of:  
 identifying at least one inventor having assigned at least one patent to the company;  
 determining a percentage of the company's patent portfolio invented by the inventor; and  
 identifying the assignment of at least one invention made by the inventor to a second company.
27. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating the percentage of patents held by the company in at least one patent class.
28. The method according to claim 7 wherein the company is an insured party and further comprising the steps of:  
 calculating a modification factor for use in issuing a patent insurance policy to the insured party;  
 providing the modification factor to an insurer; and  
 using the modification factor to determine the applicable terms of the patent insurance policy.
29. The method according to claim 28 wherein the modification factor is calculated according to the equation:

$$\text{Modification Factor} = \sum_{i=1}^k (\alpha_i)(X_i)$$

where  $k$  = the total number of patent factors being assessed in a company's patent portfolio;

where  $i$  is a counter for counting the number of patent factors;

where  $\alpha_i$  is a weighting coefficient determined by the type of industry, level of technology, and business activities of the insured party; and where  $X_i$  is a patent factor for the insured party selected from the group consisting of: Patent Years, Future Patent Power, Average Patent Term, CRI and Patent Strength.

30. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a Claim Ratio Index for at least one patent claim.
31. The method according to claim 30 wherein the Claim Ratio Index is calculated for a plurality of patent claims according to the equation:

$$CRI_{\text{claims}} = \frac{\sum(\text{Number of words in the claims})}{\text{Total number of claims.}}$$

32. The method according to claim 31 wherein the claims comprise at least one independent claim.
33. The method according to claim 31 wherein the claims comprise at least one dependent claim.
34. The method according to claim 31 wherein the claims comprise at least one method claim.
35. The method according to claim 31 wherein the claims comprise at least one apparatus claim.
36. The method according to claim 31 wherein the claims comprise at least one article of manufacture claim.
37. The method according to claim 31 wherein the Claim Ratio Index is adjusted by the use of at least one weighting factor to generate an Overall Adjusted Claim Ratio Index according to the equation:

$$\text{Overall Adjusted } CRI_n = \mu_n^\phi \Phi_n^\gamma CRI_{\text{claims } n}$$

where

$$\mu_n = \frac{(\text{total number of structural limitations in the claims})}{(\text{total number of structural and functional limitations in the claims});}$$

$\phi$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study and used to adjust the value of  $\mu_n$ ;

$$\Phi_n = \frac{(\text{total number of words in amended claims}) \times (\text{number of amendments filed})^\lambda}{(\text{total number of words in unamended claims})}$$

where  $\lambda$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study;

$\gamma$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study and used to adjust the value of  $\Phi_n$ ; and

$n$  represents the particular patent or patent portfolio under analysis.

38. The method according to claim 37 wherein a greater value of the Overall Adjusted Claim Ratio Index,  $\mu_n^\Phi$  and  $\Phi_n^\gamma$  correlate to broader patent coverage and wherein a lesser value of the Overall Adjusted Claim Ratio Index,  $\mu_n^\Phi$  and  $\Phi_n^\gamma$  correlate to narrower patent coverage.
39. The method according to claim 37 wherein the Overall Adjusted Claim Ratio Index is calculated for at least one of the following selected from the group consisting of: a single patent, a portfolio of patents, a portion of a portfolio of patents, independent claims, dependent claims, method claims, apparatus claims and article of manufacture claims.
40. The method according to claim 37 further comprising the step of comparing the Overall Adjusted Claim Ratio Index for the company against an Overall Adjusted Claim Ratio Index for a second company and wherein the second company is a competitor of the company.
41. The method of claim 1 wherein the steps are performed by using a plurality of computer executable instructions being executed on a computer processing system.
42. The method according to claim 7 wherein the step of performing an assessment of the intellectual property data further comprises the step of calculating a Patent Strength.
43. The method according to claim 42 wherein the Patent Strength is calculated according to the equation:

$$\text{Patent Strength} = \sum_{i=1}^k (\text{Claim Strength}_i \times \text{Market Demand}_i)$$

where  $k$  = the total number of patent claims being assessed;

$i$  is a counter that ranges from 1 to  $k$  for counting the number of patent claims;

where Claim Strength is a numerical representation of the strength of a patent claim and is calculated and adjusted using at least one of the following selected from the group comprising: Overall Adjusted Claim Ratio Index, Claim Ratio Index, Future Patent Power, Patent Years, Average Patent Term, percentage of lapsed patents in the company's patent portfolio, percentage of patent applications pending in the company's patent portfolio, percentage of patents that have been invalidated in the company's patent portfolio, percentage of patents in the company's patent portfolio that have been involved in litigation, prior art, claim scope, validity and professional assessment;

where Market Strength is a numerical representation of the market demand for the claimed invention and is calculated and adjusted using at least one of the following selected from the group consisting of: demand for the claimed invention, present market share controlled by a patent owner or licensee, marketing channels, future growth potential, alternate goods, substitute goods, alternate technologies, obsolescence, market timing, and other factors which tend to increase or decrease the market demand for the claimed invention; and

wherein a higher value of the Patent Strength correlates to a higher market value and wherein a lower value of the Patent Strength correlates to a lower market value.

44. The method according to claim 43 further comprising the step of using the value of the Patent Strength as a financial indicator.
45. The method according to claim 44 wherein the Patent Strength is compared to at least one of the following selected from the group consisting of: research and development expenditures, Patent Strength values for members of the company's peer group, earnings per share data, stock price, P/E ratio data, Return on Asset data and Return on Investment data.



46. The method according to claim 44 wherein the Patent Strength is converted to an equity value used in assessing the overall assets of the company.
47. The method according to claim 46 wherein the Patent Strength is converted to an equity value using a normalization technique.
48. A computerized system for assessing intellectual property comprising:  
means for gathering intellectual property data;  
means for performing an assessment of the intellectual property data; and  
means for generating a report based on the assessment of the intellectual property data.
49. The system according to claim 48 wherein the means for performing an assessment of the intellectual property data further comprises means for assessing a plurality of intellectual property holdings with respect to prior art, competitor's products, processes and market demands.
50. The system according to claim 48 wherein the means for performing an assessment of the intellectual property data further comprises means for performing a peer group analysis of a plurality of companies to compare the intellectual property data held by the companies.
51. The system according to claim 48 wherein the means for performing an assessment of the intellectual property data further comprises means for performing a competitive analysis of a plurality of companies using the intellectual property data and market data.
52. The system according to claim 48 wherein the intellectual property data comprises patent data for a company.
53. The system according to claim 52 wherein the means for performing an assessment of the intellectual property data further comprises means for calculating an Average Term for at least one patent owned by the company according to the equation:

$$\text{Average Term} = \frac{\sum \text{Years remaining on patent term for each patent being assessed}}{\text{Number of patents being assessed.}}$$

54. The system according to claim 52 wherein the means for performing an assessment of the intellectual property data further comprises means for

calculating Patent Years for at least one patent owned by the company according to the equation:

$$\text{Patent Years} = \sum_{i=1}^k (\text{Years remaining on term of patent } i)$$

where  $k$  = the total number of patents being assessed in the company's patent portfolio and where  $i$  is a counter for counting the number of patents.

55. The system according to claim 54 further comprising:  
means for plotting the Patent Years versus time;  
means for generating a line based on the plot of the Patent Years versus time;  
means for calculating an area under the line; and  
means for determining a Future Patent Power, the Future Patent Power equal to the area under the line.
56. The system according to claim 52 wherein the company is an insured party and further comprising:  
means for calculating a modification factor for use in issuing a patent insurance policy to the insured party;  
means for providing the modification factor to an insurer; and  
means for using the modification factor to determine the applicable terms of the patent insurance policy.
57. The system according to claim 56 wherein the modification factor is calculated according to the equation:

$$\text{Modification Factor} = \sum_{i=1}^k (\alpha_i)(X_i)$$

where  $k$  = the total number of patent factors being assessed in a company's patent portfolio;

where  $i$  is a counter for counting the number of patent factors;

where  $\alpha_i$  is a weighting coefficient determined by the type of industry, level of technology, and business activities of the insured party; and

where  $X_i$  is a patent factor for the insured party selected from the group consisting of: Patent Years, Future Patent Power, Average Patent Term, CRI and Patent Strength.

58. The system according to claim 52 wherein the means for performing an assessment of the intellectual property data further comprises means for calculating a Claim Ratio Index for at least one patent claim.

59. The system according to claim 58 wherein the Claim Ratio Index is calculated for a plurality of patent claims according to the equation:

$$\text{CRI}_{\text{claims}} = \frac{\sum(\text{Number of words in the claims})}{\text{Total number of claims.}}$$

60. The system according to claim 59 wherein the Claim Ratio Index is adjusted by the use of at least one weighting factor to generate an Overall Adjusted Claim Ratio Index according to the equation:

$$\text{Overall Adjusted CRI}_n = \mu_n^\phi \Phi_n^\gamma \text{CRI}_{\text{claims } n}$$

where

$$\mu_n = \frac{(\text{total number of structural limitations in the claims})}{(\text{total number of structural and functional limitations in the claims})};$$

$\phi$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study and used to adjust the value of  $\mu_n$ ;

$$\Phi_n = \frac{(\text{total number of words in amended claims}) \times (\text{number of amendments filed})^\lambda}{(\text{total number of words in unamended claims})};$$

where  $\lambda$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study;

$\gamma$  is a weighting exponent that is adjusted based on the particulars of the patent or patent portfolio under study and used to adjust the value of  $\Phi_n$ ;

and

$n$  represents the particular patent or patent portfolio under analysis.

61. The system according to claim 60 wherein a greater value of the Overall Adjusted Claim Ratio Index,  $\mu_n^\phi$  and  $\Phi_n^\gamma$  correlate to broader patent coverage and wherein a lesser value of the Overall Adjusted Claim Ratio Index,  $\mu_n^\phi$  and  $\Phi_n^\gamma$  correlate to narrower patent coverage.



wherein a higher value of the Patent Strength correlates to a higher market value and wherein a lower value of the Patent Strength correlates to a lower market value.

64. The system according to claim 63 further comprising means for using the value of the Patent Strength as a financial indicator.
65. The system according to claim 64 wherein the Patent Strength is compared to at least one of the following selected from the group consisting of: research and development expenditures, Patent Strength values for members of the company's peer group, earnings per share data, stock price, P/E ratio data, Return on Asset data and Return on Investment data.
66. The system according to claim 64 wherein the Patent Strength is converted to an equity value used in assessing the overall assets of the company.
67. The system according to claim 66 wherein the Patent Strength is converted to an equity value using a normalization technique.
68. A computer program product for assessing the value of a patent portfolio comprising:  
a computer executable program for being executed on a computer processor, the computer executable program embedded in a tangible medium, the computer executable program configured and arranged to store and organize patent data, and the computer executable program configured and arranged to cause the computer processor to determine a patent indicator.
69. The computer program product of claim 68 wherein the tangible medium is selected from the group consisting of: cd ROMs, magnetic tapes, floppy disks, hard disks, and computer tapes, and wherein the computer executable program is configured and arranged to cause the computer processor to determine the patent indicator which is selected from the group consisting of: Overall Adjusted Claim Ratio Index, Claim Ratio Index, Future Patent Power, Patent Years, Patent Strength, Average Patent Term, percentage of lapsed patents in a patent portfolio, percentage of patent applications pending in a patent portfolio, percentage of patents that

have been invalidated in a patent portfolio, and percentage of patents in a patent portfolio that have been involved in litigation.

FOIA b 7 - DEX 9360